UNITED STATES PATENT AND TRADEMARK OFFICE

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EXAMINER
PEREZ, JULIO R

ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _23 August 2010_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-22_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) _16-22_ is/are allowed.

6)☒ Claim(s) _1 and 4-15_ is/are rejected.

7)☒ Claim(s) _2 and 3_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments with respect to claims 1-22 have been considered

but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

3.   Claims 1, 4-15 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Swant (2005/0032494) in view of Ruan et al (2004/0246922).

Regarding claim 1, Swant discloses an apparatus for testing and

analyzing a base station having a smart antenna, which is for a WCDMA

(Wideband Code Division Multiple Access) mobile communication system, the

apparatus comprising:

a test analyzer body (test unit, MTU, 260, Figure 2) for performing

management of a test call including channel establishment (par. 36, connection

initiated, i.e., establishment of channel connection) or release of the base station

(BTU, 250, Figure 2),

and measuring and analyzing an operational state of the system including

service-specific functions and performance of the system (pars. 37, 39, 42, 45,

52-54, 59-60 describe the test unit testing performance of the system or base

station(s) via the test unit or a mobile phone test unit);

and a test analyzer interface for transmitting or receiving a protocol signal

message, traffic, and performance data to or from the test analyzer body (Figures

2-3; pars. 42-45, describe different functions being monitored, to include traffic,

i.e., calls).

Swant does not specifically suggest connecting to the base station to

generate mass mobile communication multimedia test calls, however, Ruan

discloses measuring the performance of a system with testing traffic or calls via

the test unit apparatus (Fig. 3, #'s 303-305; par. 48, calculating association

quality for current access points, pars. 49-50 and 52).

Swant and Ruan are analogous art because they are from a similar field of

endeavor in testing the performance of mobile communications systems. Thus, it

would have obvious to a person of ordinary skill in the art, at the time of

invention, to modify the teachings of Swant generating mass mobile

communication test calls taught by Ruan in order to provide the monitoring of the

mobile system with variety of test data from different types of mobile call data.

Regarding claim 4, the combination discloses claim 2, wherein the data

processor comprises: a data analyzer for analyzing the performance data of the

test call processor (Swant, pars. 36-37, 45, monitoring traffic)); and a

performance database for storing an analysis result of the data analyzer (Swant,

pars. 36-37, 45, communication with mobile station and monitoring traffic).

Regarding claim 5, the combination discloses claim 1, wherein the test call includes a voice, video, or Internet multimedia call, the test call communicating with a mobile station according to a corresponding protocol (Swant, Figure 3; par.45, describe at least testing voice call).

Regarding claim 6, the combination discloses claim 2, wherein the protocol processor establishes a channel to a mobile station using a message stored in a signal message database according to the corresponding protocol (Swant, pars. 36-37, 45, communication with mobile station and monitoring traffic).

Regarding claim 7, the combination discloses claim 6, wherein when a channel to the mobile station is established, the protocol processor reports the result to the network interface and a traffic analyzer of the test call processor and transmits/receives the corresponding traffic to/from the mobile station (Swant, Par. 41, mobile station under test and providing air link with a GSM protocol).

Regarding claim 8, the combination discloses claim 3, wherein the analysis result of the traffic includes an analysis result of a frame error rate, or a propagation delay (Swant, pars. 36-37, 45, communication with mobile station and monitoring traffic).

Regarding claim 9, the combination discloses claim 4, wherein the analysis result of the data processor includes an analysis result of a modulation/demodulation state, or an operational performance of the base station (Swant, pars. 36-37, 45, communication with mobile station and monitoring traffic).

Regarding claim 10, the combination discloses claim 4, wherein the data stored in the performance database are reported to the user interface by a request of an operator, enabling the operator to monitor the performance of the mobile communication system (Swant, pars. 36-37, 45, communication with mobile station and monitoring traffic).

Claim 11 contains subject matter similar to claim 1, and thus, is rejected under similar rationale.

Regarding claim 12, the combination discloses claim 11, further comprising: transmitting the protocol signal message, the traffic, and the performance data (Swant, pars. 36-37, 45, communication with mobile station and monitoring traffic).

Regarding claim 13, the combination discloses claim 11, further comprising: storing the signal message and the performance data in a database (Swant, pars. 36-37, 45, communication with mobile station and monitoring traffic).

Claim 14 contains subject matter similar to claim 5, and thus, is rejected under similar rationale.

Claim 15 contains subject matter similar to claim 9, and thus, is rejected under similar rationale.

Allowable Subject Matter

4.   Claims 2, 3 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a

statement of reasons for the indication of allowable subject matter: None of the

prior art, either singularly or in combination, teach or fairly suggest wherein a test

call processor for selecting a protocol corresponding to the test call, analyzing a

signal message for the protocol to monitor a call setup procedure, processing the

test call to analyze traffic, and monitoring the quality of the traffic according to the

analysis result of the traffic; a protocol processor for generating a signal message

used for the selected protocol; a data processor for analyzing and processing the

performance data of the test call processor; and a network interface for

communicating with the test analyzer interface to transmit or receive the protocol

signal message, the traffic, and a performance message; and wherein the test

call processor comprises: a test call analyzer for selecting a corresponding

protocol according to the test call; a traffic analyzer for reporting the protocol

signal message to the test call analyzer to monitor the call setup procedure, or

reporting the analysis result of the traffic to the test call analyzer to monitor the

quality of the traffic; and a signal message database for storing the signal

message in order.

5.   Claims 16-18, 19-22 are allowed.

6.   Claims 16-18, 19-22 are allowed because the closest prior art

2005/0032494 to Swant and 2004/0246922 to Ruan, either alone or in

combination, fail to anticipate or render obvious the communicating protocol

apparatus and method for test analysis of a base station for providing a call

control layer for performing the call control service and then requesting a mobility

management service or a mobility management layer for performing the mobility

management service and then requesting a radio resource control service, a

radio resource control (RRC) layer for performing the radio resource control

service and then requesting a radio link control service, and a frame protocol

layer for performing the frame protocol service and then requesting an Ethernet

service, as well as transferring service requests from a plurality of protocol layers

of a test analyzer body; processing services of an Ethernet layer and a frame

protocol layer among the plural protocol layers, and transferring service requests

of an application layer or a medium access control layer; carrying the service

requests of the application layer or the medium access control layer transferred

to the base station on an LI (Layer 1) layer and transferring the carried service

quests to the normal mobile station; and processing the service from the normal

mobile station in a reverse direction of processing the service requests among

the layers of the test analyzer body, in combination with all other limitations in the

claim(s) as defined by applicant.

Conclusion

7.   Any inquiry concerning this communication or earlier communications from

the examiner should be directed to JULIO PEREZ whose telephone number is

(571)272-7846. The examiner can normally be reached on 10-6.

If attempts to reach the examiner by telephone are unsuccessful, the

examiner's supervisor, PATRICK EDOUARD can be reached on (571)272-7603.

The fax phone number for the organization where this application or proceeding

is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

11/30/2010   /J. P./
                                                                   Examiner, Art Unit 2617
/Patrick N. Edouard/
Supervisory Patent Examiner, Art Unit 2617